MEMO

To: Bob Breuer, I&C Program Manager

From: Joel Frost, Natural Resource Analyst, I&C

RE: December 1st, 2014 site walk through, December 17th, 2014 mercury vapor

survey at Tatooine Industries International, located at 4390 I-80 Service

Road, Burns, WY, Date: December 29th, 2014

Overview

On December 1st, 2014, I conducted a site walk through of the Tatooine Industries International facility located at 6520 Hinesley Road, Cheyenne, WY. The site inspection was at the request of Mrs. Brittany Reddy (Executive Vice President and CFO, Cheyenne State Bank to help identify any potential hazardous waste issues at the site. Mrs. Reddy, Mr. Jeremy Gross (Wyoming Attorney General's Office) and Mr. William Cownover (Business Specialist, State Environmental Coordinator, Rural Development, U.S. Department of Agriculture) were present during the site walkthrough.

I arrived at the site at 1:10 PM to conduct the walk through. Two buildings were inspected, building #1, where the e-waste is stored and previously disassembled, and building #2 where e-waste is only stored. The site walkthrough concluded at approximately 2:30 PM

On December 17th, 2014, a mercury vapor survey was conducted at buildings #1 and #2 using a Jerome J-405 mercury vapor analyzer. Mrs. Brittany Reddy (Executive Vice President and CFO, Cheyenne State Bank) was present during this activity. I arrived at the site at approximately 10:15 PM and concluded at approximately 11:15 AM.

This memo is arranged as follows:

- 1) Overview and site visits narrative
 - a. Overview
 - b. 12/1/14 Outside site conditions
 - i. Building #1
 - 1. North side
 - 2. East side
 - 3. South side
 - West side
 - ii. Building #2
 - 1. North side

- 2. East side
- 3. South and West side
- c. Building #1 (inside)
 - i. Overview
 - ii. 12/17/14 Mercury Vapor Survey
- d. Building #2 (inside)
 - i. Overview
 - ii. 12/17/14 Mercury Vapor Survey
- 2) Figure 1 Overview drawing of site and locations of various items and waste streams
- 3) Figure 2 Location of mercury vapor sampling points inside building #1
- 4) Table 1 Mercury vapor sampling results for building #1
- 5) 12/17/14 photos #1-#7 Photos of area in building #1 where mercury is stored and various mercury vapor sample points
- 6) Figure 3 Location of mercury vapor sampling points inside building #2
- 7) Table 2 Mercury vapor sampling results for building #2
- 8) 12/1/14 photos #1-#69, photos of site and inside buildings #1 and #2

12/1/14 Outside Site Conditions

The site and buildings appeared to be as secure as could be expected. Buildings #1 and #2 were secured with an alarm system that had been installed by Cheyenne State Bank.

Figure 1 represents the outside site conditions as noted during the December 1st, 2014 inspection and December 16th, 2014 off-site observations.

Building 1

North side – approximately 15 to 20 gaylords of broken CRT glass was located in and near the loading dock in the northwest corner. Each gaylord could not be completely examined and the possibility exists that these gaylords contain leaded glass. The condition of the gaylords was generally poor and there were several gaylords that were completely broken down (see 12/1/14 photos #63, #65, #66, #67). Three wooden boxes to the east of loading dock contained what appeared to be fluorescent light ballasts (see photo #69).

East side – This is the e-waste delivery dock. Large amounts of whole unprocessed computers, monitors/tvs, printers, aluminum airplane parts, wood pallets and various other waste electronics are located in this area (see 12/1/14 photos #43-#47). The e-waste is not covered and some are in gaylord containers and some of it is directly on the concrete pad. The condition of most of the gaylords appeared to be poor. On the S-SW corner of the building there is an open top semi-trailer which reportedly contains aluminum parts from an aircraft.

South side – This side of the building has three parked semi-trailers on the southeast corner and gaylords containing e-waste and metal recyclables. The rest of the length of the south side, excepting the large bay entrance door, contains gaylords of unprocessed e-waste and several small bins containing separated metal recyclables (see 12/1/14 photos #48, #49).

West side – Approximately 100 complete and broken gaylords of broken CRT glass in addition to a large number of wooden pallets (see 12/1/14 photos #50, #58, #59, #60, #61, #62, #63). Each gaylord could not be completely examined and the possibility exists that these gaylords contain leaded glass.

To the northwest of building 1 is a line of 6 semi-trailers containing e-waste. Previous inspections showed that these semi-trailers contained whole CRT monitors and televisions along with other e-waste (see 12/1/14 photos #50, #58, #59, #68). On the east end of these semi-trailers there were 4-5 gaylords of broken CRT glass. Each gaylord could not be completely examined and the possibility exists that these gaylords contain leaded glass.

Building 2

North side – On the north/north west side of this building are two semi-trailers containing e-waste. Previous inspections showed that these semi-trailers contained unprocessed CRT monitors and televisions along with other e-waste.

East side – Three semi-trailers that reportedly contain un-processed e-waste are parked near the entrance to this building and a small number of wood pallets and other materials.

South & West sides - No significant accumulations of e-waste or other waste were observed.

Building #1 (inside)

Overview

Inside conditions of building #1 were observed on 12/1/14 and on 12/17/14 (mercury vapor survey).

Building #1 contained e-waste in various states of disassembly, from whole units of computers, electronics and tv's/monitors's, gaylords and pallets of separated e-waste (keyboards, speakers, plastics, batteries etc, see 12/1/14 photos #1-#41, 12/17/14 photos #1-#6).

Of particular concern were three gaylords of broken CRT glass that appeared to be leaded glass (located in the NW corner of the building, see 12/1/14 photos #17, #18). Three working refrigerators holding closed containers of mercury (located in the NE corner of the building, see 12/1/14 photo #3, and 12/17/14 photos #1, #3) and a partial gaylord of what appeared to be smoke detectors (see 12/1/14 photo #42).

Offices and equipment storage areas were located on the south side of the building, eastern half (see 12/1/14 photos #23-#29). Above the above the offices was an open loft equipment storage area and a closed room that appeared to be in construction as a computer server farm (see 12/1/14 photos #30-#32, #38-#41).

It was not practicable to remove and replace potentially hundreds of pounds of e-waste to observe contents in the bottom layers of gaylords and other containers during the inspection or without significant labor help.

12/17/14 Mercury Vapor Survey

On December 17th, 2014, a mercury vapor survey was conducted using the Jerome J-405 Mercury Vapor Analyzer. The site was accessed at 10:27 AM and Mrs. Brittany Reddy of Cheyenne State Bank was present during the survey. The survey at this building was completed at 10:55 AM.

Ambient air was sampled for mercury vapor at floor level and eye level at 14 discreet locations, one sample was taken in each refrigerator storing mercury (3 total), and 3 samples were taken at floor level around the area where the mercury was stored (see 12/17/14 photos). A total of 34 discrete samples were taken. All sampling events registered 0.00 micrograms/cubic meter of mercury with the exception of the samples taken inside of the refrigerators as follows:

Sample 4	Large Refrigerator	1.02 micrograms/cubic meter
Sample 5	Medium Refrigerator	0.76 micrograms/cubic meter
Sample 6	Small Refrigerator	2.02 micrograms/cubic meter

All positive samples for mercury were below the OSHA PEL for mercury.

See Figure 2 for approximate locations of each sampling event and Table 1 for sampling results.

Building #2 (inside)

Overview

Inside conditions of building #2 were observed on 12/1/14 and on 12/17/14 (mercury vapor survey).

This building was essentially full of c-waste awaiting deconstruction (see 12/1/14 photos #52, #53, #54, #55, #56, #57).

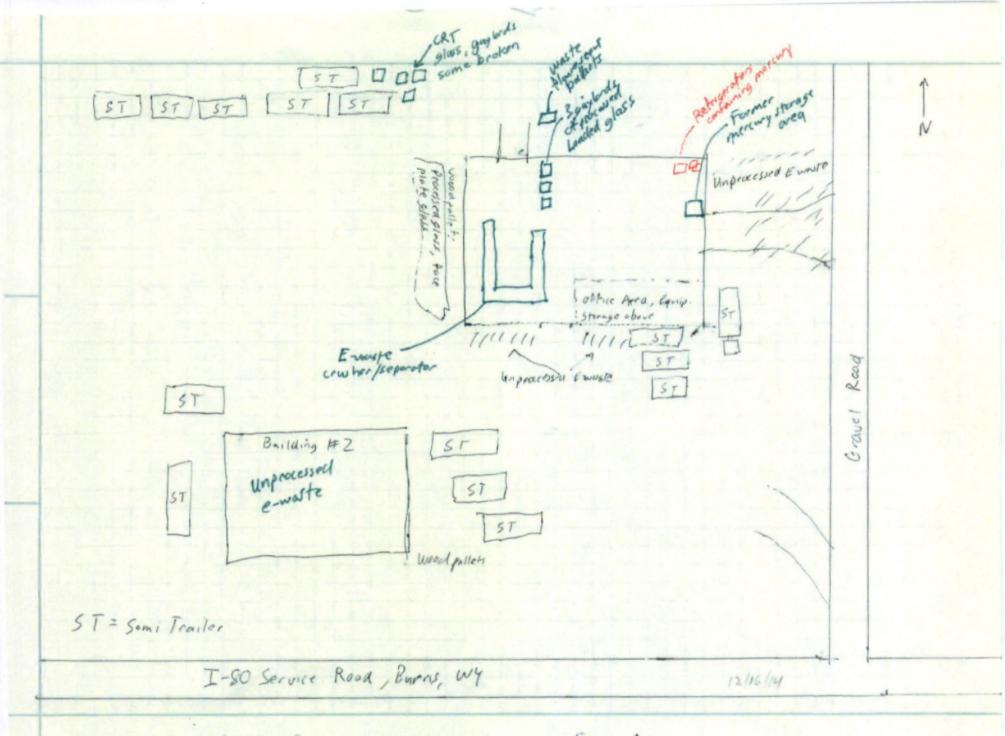
It was not practicable to remove and replace potentially hundreds of pounds of e-waste to observe contents in the bottom layers of gaylords and other containers during the inspection or without significant labor help.

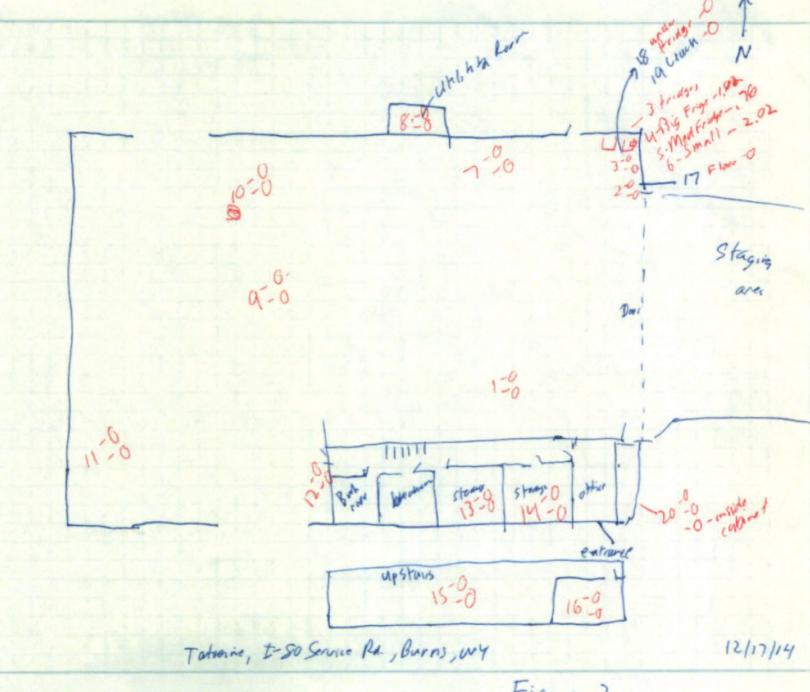
12/17/14 Mercury Vapor Survey

This building was accessed at approximately 11:04 AM. Ambient air was sampled for mercury vapor at floor level and eye level at 1 discreet location. A total of 2 discrete samples were taken. All sampling events registered 0.00 micrograms/cubic meter of mercury. See Figure 3 for approximate locations of each sampling event and Table 2 for the sampling results. The sampling was completed at 11:05 AM.

Cc: Tatooine Industries International, I-80 Service Road, Burns, WY file Bob Breuer, I&C Program Manager Rebecca Dietrich, SW Permitting District 1 Supervisor

Attachments: Figures 1, 2, 3, Tables 1, 2, 12/1/14 photo report, 12/17/14 photo report





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Figure 2

Tatooine Industries International 4390 I-80 Service Road, Burns, WY, Building #1 12/17/14 Mercury Vapor Survey Test Results Jerome J-405 Mercury Vapor Analyzer

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Sample #	Date/Time	Result	Units	Temp C	
1A	17-DEC-2014,10:27:36,	0.00,	ug/m3,	15.31,	
1B	17-DEC-2014,10:27:57,	0.00,	ug/m3,	15.31,	
2A	17-DEC-2014,10:28:56,	0.00,	ug/m3,	15.25,	
2B	17-DEC-2014,10:29:36,	0.00,	ug/m3,	15.12,	
3A	17-DEC-2014,10:30:04,	0.00,	ug/m3,	15.12,	
3B	17-DEC-2014,10:30:29,	0.00,	ug/m3,	15.12,	
	4 17-DEC-2014,10:31:03,	1.02,	ug/m3,	15.12,	Inside big refrigerator
	5 17-DEC-2014,10:33:27,	0.76,	ug/m3,	15.18,	Inside medium refrigrator
	6 17-DEC-2014,10:33:51,	2.02,	ug/m3,	15.18,	Inside small refrigerator
7A	17-DEC-2014,10:35:19,	0.00,	ug/m3,	15.12,	
7B	17-DEC-2014,10:35:42,	0.00,	ug/m3,	15.12,	
8A	17-DEC-2014,10:36:43,	0.00,	ug/m3,	15.12,	
8B	17-DEC-2014,10:37:27,	0.00,	ug/m3,	15.06,	
9A	17-DEC-2014,10:38:08,	0.00,	ug/m3,	15.06,	
9B	17-DEC-2014,10:38:30,	0.00,	ug/m3,	15.06,	
10A	17-DEC-2014,10:39:10,	0.00,	ug/m3,	15.12,	
10B	17-DEC-2014,10:39:33,	0.00,	ug/m3,	15.12,	
11A	17-DEC-2014,10:40:27,	0.00,	ug/m3,	15.12,	
118	17-DEC-2014,10:40:54,	0.00,	ug/m3,	15.12,	
12A	17-DEC-2014,10:41:44,	0.00,	ug/m3,	15.12,	
128	17-DEC-2014,10:42:09,	0.00,	ug/m3,	15.18,	
13A	17-DEC-2014,10:42:47,	0.00,	ug/m3,	15.18,	
138	17-DEC-2014,10:43:24,	0.00,	ug/m3,	15.18,	
14A	17-DEC-2014,10:44:01,	0.00,	ug/m3,	15.18,	
14B	17-DEC-2014,10:44:24,	0.00,	ug/m3,	15.18,	
15A	17-DEC-2014,10:45:55,	0.00,	ug/m3,	15.18,	
15B	17-DEC-2014,10:46:31,	0.00,	ug/m3,	15.18,	
16A	17-DEC-2014,10:47:07,	0.00,	ug/m3,	15.25,	
16B	17-DEC-2014,10:47:26,	0.00,	ug/m3,	15.25,	
1	7 17-DEC-2014,10:49:23,	0.00,	ug/m3,	15.18,	Floor next former mercury storage area
18	3 17-DEC-2014,10:50:39,	0.00,	ug/m3,	15.18,	Under medium fridge
19	9 17-DEC-2014,10:52:21,	0.00,	ug/m3,	15.12,	Floor crack
20A	17-DEC-2014,10:54:11,	0.00,	ug/m3,	15.00,	
20B	17-DEC-2014,10:54:36,	0.00,	ug/m3,	15.00,	
20C	17-DEC-2014,10:55:46,	0.00,	ug/m3,	15.00,	Inside cabinet

Date Taken:

12/17/14

Taken By:

Joel Frost

Caption:

Mercury containing refrigerators, NE corner building #1, sample points #4, #5,

#6



Date Taken: 12/17/14

Taken By:

Joel Frost

Caption:

Area where mercury containing refrigerators were formerly located, NE corner building #1,

sample point #2A



Date Taken:

12/17/14

Taken By:

Joel Frost

Caption:

Mercury containing refrigerators, NE

corner building #1, sample point #18



Date Taken: 12/17/14

Taken By:

Joel Frost

Caption:

Area where mercury containing refrigerators were formerly located, NE corner building #1,

sample point



Date Taken: 12/17/14

Taken By:

Joel Frost

Caption:

Mercury containing refrigerators, NE corner building #1, sample point #18

underneath refrigerator



Date Taken: 12/17/14

Taken By:

Joel Frost

Caption:

Crack sample point, NE corner

building #1, sample #19



Date Taken: 12/17/14

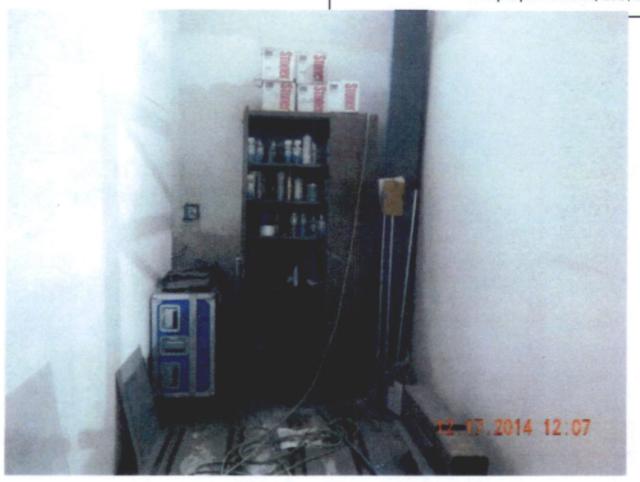
Taken By:

Joel Frost

Caption:

File cabinet, SE corner of building #1,

sample points #20A, 20B, #20C



Building #2

1-0

1-0

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12/17/14

Tatooine Industries International

4390 I-80 Service Road, Burns, WY, Building #2 12/17/14 Mercury Vapor Survey Test Results Jerome J-405 Mercury Vapor Analyzer Table 2

Sample #	Date/Time	Result	Units	Temp C
1A	17-DEC-2014,11:04:29,	0.00,	ug/m3	14.81,
1B	17-DEC-2014,11:05:02,	0.00,	ug/m3	14.93,



